

NOAA and NOAA Partnership Stations Relative to the Storm

10/15/12 2/AM		
Charlotte Amalie, VI	10/15/12 2/AM	
Sabel Segunda, Vieques Island, PR	10/14/12 2 PM	
Esperanza, Vieques Island, PR	10/13/12 2 PM	
Christiansted Harbor, St Croix, VI	10/13/12 5 AM	
Lime Tree Bay, VI		
Active Stations	Extent TS Force Winds	Extent TS Force Winds
Miles	10/13/12 3/190 380	

# Storm Analysis

As of 10/13/2012 06:00 AST, water levels across the U.S. Virgin Islands and Barbuda are slightly elevated and range from 0.35 to 0.8 feet above tidal predictions. Wind speeds are generally below 10 kts with slightly higher gusts. Barometric pressure continues to fall across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Christiansted Harbor, St Croix, VI: Next predicted high tides are 0.5 ft (0.17 m) at 10/13/2012 06:56 AST and 0.5 ft (0.15 m) at 10/13/2012 17:47 AST.

Lime Tree Bay, VI: Next predicted high tides are 0.7 ft (0.22 m) at 10/13/2012 07:24 AST and 0.7 ft (0.21 m) at 10/13/2012 16:35 AST.

Charlotte Amalie, VI: Next predicted high tides are 0.9 ft (0.27 m) at 10/13/2012 07:09 AST and 0.8 ft (0.25 m) at 10/13/2012 18:32 AST.

Culebra, PR: Next predicted high tides are 1.3 ft (0.38 m) at 10/13/2012 06:36 AST and 1.2 ft (0.36 m) at 10/13/2012 18:38 AST.

Isabel Segunda, Vieques Island, PR: Next predicted high tides are 1.3 ft (0.39 m) at 10/13/2012 06:51 AST and 1.1 ft (0.35 m) at 10/13/2012 18:53 AST.

Esperanza, Vieques Island, PR: Next predicted high tides are 0.5 ft (0.16 m) at 10/13/2012 06:18 AST and 0.5 ft (0.15 m) at 10/13/2012 17:36 AST.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see <u>Tidal Datums</u>. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst:DW			

# SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM RAFAEL ADVISORY NUMBER 3 NWS NATIONAL HURRICANE CENTER MIAMI FL 500 AM AST SAT OCT 13 2012

...RAFAEL CONTINUES TO PRODUCE HEAVY RAINS AND TROPICAL STORM CONDITIONS OVER PORTIONS OF THE LESSER ANTILLES...

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY...

NONE.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- \* U. S. VIRGIN ISLANDS
- \* BRITISH VIRGIN ISLANDS
- \* ANGUILLA...BARBUDA...ST. KITTS... NEVIS...ANTIGUA...AND MONTSERRAT
- \* SABA...ST. EUSTATIUS...AND ST. MAARTIN
- \* ST. MARTIN
- \* GUADELOUPE...DESIRADE...LES SAINTES...MARIE GALANTE
- \* MARTINIOUE
- \* ST. LUCIA

A TROPICAL STORM WATCH IS IN EFFECT FOR...

\* PUERTO RICO...CULEBRA...AND VIEQUES

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA WITHIN 36 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...GENERALLY WITHIN 48 HOURS.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION SPECIFIC TO YOUR AREA OUTSIDE THE UNITED STATES...PLEASE MONITOR PRODUCTS ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

#### **DISCUSSION AND 48-HOUR OUTLOOK**

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AT 500 AM AST...0900 UTC...THE CENTER OF TROPICAL STORM RAFAEL WAS LOCATED NEAR LATITUDE 15.7 NORTH...LONGITUDE 64.2 WEST. RAFAEL IS MOVING TOWARD THE NORTHWEST NEAR 9 MPH. A GRADUAL TURN TO THE NORTH-NORTHWEST IS EXPECTED LATER TODAY. ON THE FORECAST TRACK...THE CENTER OF RAFAEL SHOULD BE MOVING NEAR OR OVER THE VIRGIN ISLANDS TONIGHT.

MAXIMUM SUSTAINED WINDS REMAIN NEAR 40 MPH WITH HIGHER GUSTS. SOME STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS.

TROPICAL-STORM-FORCE WINDS EXTEND OUTWARD UP TO 175 MILES TO THE SOUTHEAST OF THE CENTER.

THE MINIMUM CENTRAL PRESSURE REPORTED BY A HURRICANE HUNTER AIRCRAFT WAS 1006 MB...29.71 INCHES.

#### HAZARDS AFFECTING LAND

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WIND...TROPICAL STORM CONDITIONS ARE EXPECTED ACROSS THE LESSER ANTILLES AND THE VIRGIN ISLANDS IN THE TROPICAL STORM WARNING AREA TODAY. TROPICAL STORM CONDITIONS ARE POSSIBLE OVER PUERTO RICO... CULEBRA...AND VIEQUES TONIGHT AND SUNDAY.

RAINFALL...RAFAEL IS EXPECTED TO PRODUCE TOTAL RAINFALL AMOUNTS OF 3 TO 5 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 10 INCHES...OVER THE LESSER ANTILLES AND THE VIRGIN ISLANDS. THESE RAINS COULD CAUSE LIFE-THREATENING FLASH-FLOODS AND MUDSLIDES...ESPECIALLY IN MOUNTAINOUS TERRAIN.

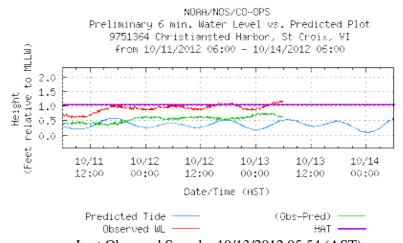
SURF...DANGEROUS SURF CONDITIONS ARE POSSIBLE IN THE LESSER ANTILLES AND THE VIRGIN ISLANDS TODAY THROUGH SUNDAY.

# FORECASTER KIMBERLAIN/AVILA

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

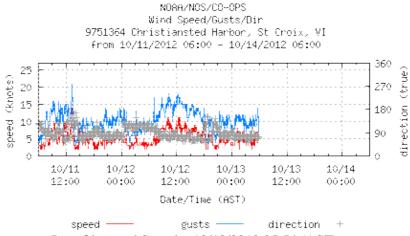
Jump to: <u>Christiansted Harbor, St Croix - Water Level, Christiansted Harbor, St Croix - Winds, Lime Tree</u>
<u>Bay - Water Level, Lime Tree Bay - Winds, Lime Tree Bay - Barometric, Charlotte Amalie - Water Level, Charlotte Amalie - Water Level, Culebra - Water Level, Culebra - Winds, Culebra - Barometric, Isabel Segunda, Vieques Island - Water Level, Isabel Segunda, Vieques Island - Winds, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds, Esperanza, Vieques Island - Barometric,</u>

#### Christiansted Harbor, St Croix, VI - Return to List



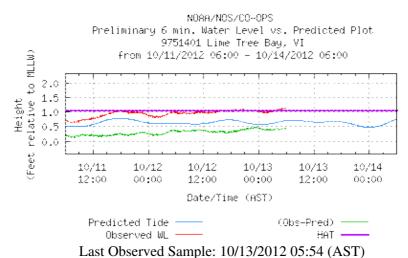
Last Observed Sample: 10/13/2012 05:54 (AST)
Relative to MLLW: Observed: 1.15 ft. Predicted: 0.52 ft. Residual: 0.63 ft. Historical Maximum Water Level: Oct 16 2008, 1.17 ft. above MHHW

# Christiansted Harbor, St Croix, VI - Return to List



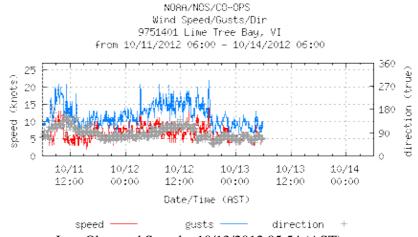
Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 5 knots Gusts: 7 knots Direction: 70° T

# Lime Tree Bay, VI - Return to List



Relative to MLLW: Observed: 1.13 ft. Predicted: 0.71 ft. Residual: 0.42 ft. Historical Maximum Water Level: Nov 17 1999, 1.88 ft. above MHHW

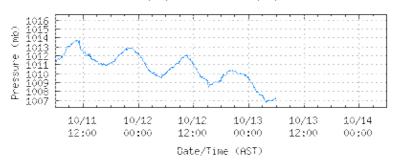
# Lime Tree Bay, VI - Return to List



Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 6 knots Gusts: 10 knots Direction: 69° T

# Lime Tree Bay, VI - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9751401 Lime Tree Bay, VI from 10/11/2012 06:00 - 10/14/2012 06:00



barometric pressure ———

Last Observed Sample: 10/13/2012 05:54 (AST)
Barometric Pressure: 1007.2 mb

# Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 9751639 Charlotte Amalie, VI (Feet relative to MLLW) from 10/11/2012 06:00 - 10/14/2012 06:00 2,0 1.5 1.0 0.5 0.0 10/11 10/12 10/12 10/13 10/13 10/14 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) Predicted Tide (Obs-Pred) Observed WL HAT

Last Observed Sample: 10/13/2012 05:54 (AST)

Relative to MLLW: Observed: 1.27 ft. Predicted: 0.84 ft. Residual: 0.43 ft. Historical Maximum Water Level: Sep 16 1995, 2.93 ft. above MHHW

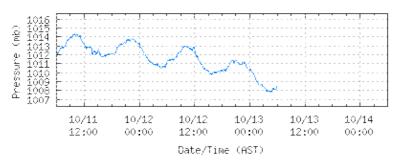
# Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 9751639 Charlotte Amalie, VI from 10/11/2012 06:00 - 10/14/2012 06:00 360 25 speed (knots) 20 15 direction 180 10 90 5 0 10/12 10/13 10/14 10/11 10/12 10/13 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) gusts direction speed

Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 4 knots Gusts: 11 knots Direction: 80° T

# Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9751639 Charlotte Amalie, VI from 10/11/2012 06:00 - 10/14/2012 06:00

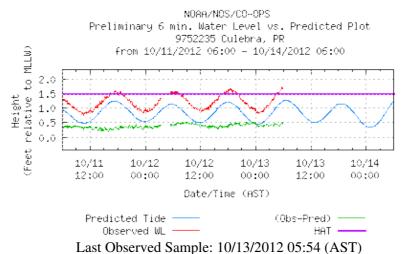


barometric pressure ——

Last Observed Sample: 10/13/2012 05:54 (AST)

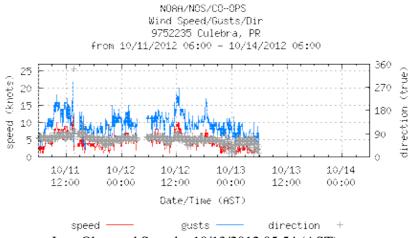
Barometric Pressure: 1008.4 mb

# Culebra, PR - Return to List



Relative to MLLW: Observed: 1.67 ft. Predicted: 1.23 ft. Residual: 0.44 ft. Historical Maximum Water Level: Nov 6 2006, 0.85 ft. above MHHW

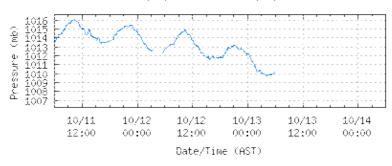
# Culebra, PR - Return to List



Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 2 knots Gusts: 7 knots Direction: 40° T

# Culebra, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9752235 Culebra, PR from 10/11/2012 06:00 - 10/14/2012 06:00



Last Observed Sample: 10/13/2012 05:54 (AST)

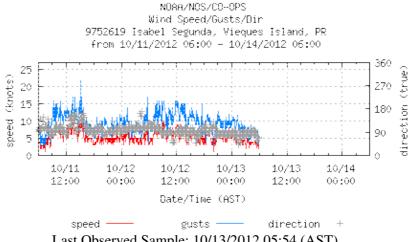
Barometric Pressure: 1010.2 mb

# Isabel Segunda, Vieques Island, PR - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 9752619 Isabel Segunda, Vieques Island, PR (Feet relative to MLLW) from 10/11/2012 06:00 - 10/14/2012 06:00 2,0 1.5 1.0 0.5 0.0 10/11 10/12 10/12 10/13 10/13 10/14 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) Predicted Tide (Obs-Pred) Observed WL MHHW

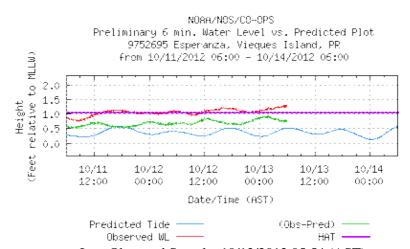
Last Observed Sample: 10/13/2012 05:54 (AST)
Relative to MLLW: Observed: 1.81 ft. Predicted: 1.22 ft. Residual: 0.59 ft. Historical Maximum Water Level: , 0 ft. above MHHW

# Isabel Segunda, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 3 knots Gusts: 5 knots Direction: 69° T

# Esperanza, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 05:54 (AST)
Relative to MLLW: Observed: 1.27 ft. Predicted: 0.52 ft. Residual: 0.75 ft.

Historical Maximum Water Level: Aug 22 2011, 1.04 ft. above MHHW

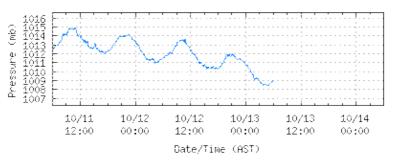
# Esperanza, Vieques Island, PR - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 9752695 Esperanza, Vieques Island, PR from 10/11/2012 06:00 - 10/14/2012 06:00 360 25 speed (knots) 20 270 15 direction 180 10 90 5 0 10/12 10/13 10/14 10/11 10/13 10/12 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) direction gusts speed

Last Observed Sample: 10/13/2012 05:54 (AST) Wind Speed: 1 knots Gusts: 3 knots Direction: 59° T

# Esperanza, Vieques Island, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9752695 Esperanza, Vieques Island, PR from 10/11/2012 06:00 - 10/14/2012 06:00



barometric pressure —

Last Observed Sample: 10/13/2012 05:54 (AST)

Barometric Pressure: 1009.0 mb

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce